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Newsletter from ICG T&C, September 2014

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As usual, this newsletter provides you with highlights of recent news and events in the worlds of ICG T&C and TRIZ, new downloads and updates of our services.

Happy innovations,

Valeri Souchkov

LATEST NEWS

Download: Glossary of TRIZ and TRIZ-related Terms

The Glossary of TRIZ and TRIZ-related terms has been developed under initiative of the International TRIZ Association (MATRIZ) and includes descriptions of 360 TRIZ and TRIZ-related terms.

The Glossary presents both unique TRIZ terms as well as commonly-used terms which are used in TRIZ under specific context. All definitions of the terms were given directly in English to reduce possible distortion and to provide concise structure and consistency of the entire Glossary.

When necessary, the terms are complemented with examples, comments, original Russian versions, synonyms and alternative translations.
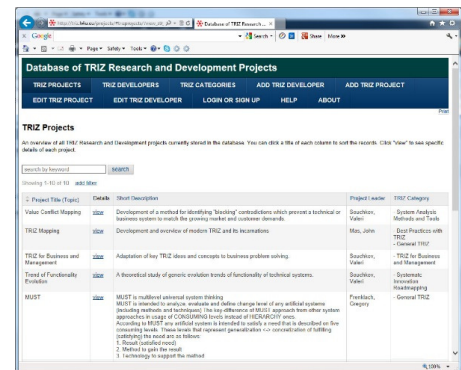
The Glossary is available for public access and will be regularly updated. The latest edition can be freely downloaded from:

http://www.xtriz.com/publications/glossary.htm

Online Database of TRIZ Research and Development Projects

The database of TRIZ Research and Development Projects has been developed and maintained to provide free and open access to information about all types of projects dedicated to studies and development in TRIZ and Systematic Innovation. It is supposed to provide references about both ongoing and past projects.

The database helps with adding and managing information about projects in the areas of TRIZ research and development performed either in organizations or individually.

The database provides references to all types of TRIZ-related projects: academic, experimental, educational, best practices, software development. There is no limit imposed on possible types of projects.

The database also provides information about individuals involved to the TRIZ projects and their links with the TRIZ projects.

The database is open which means that anyone can add and manage information about the TRIZ projects and TRIZ researchers and developers.
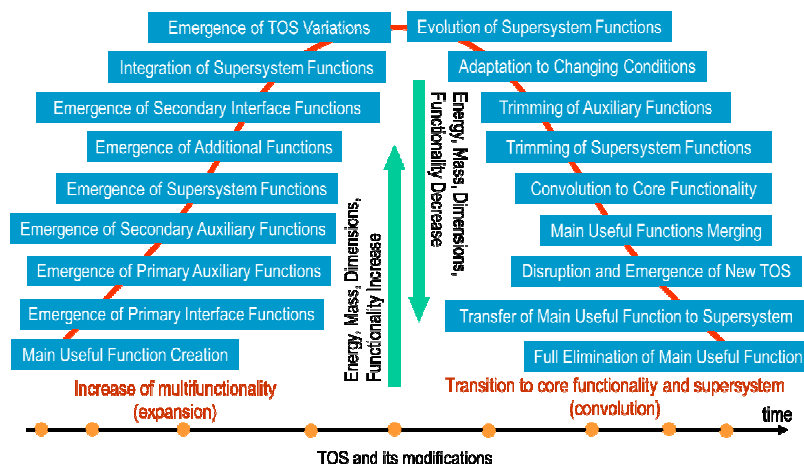
Please note that at the moment the database is still new and needs to be filled in. We invite everyone to join. Check "Help" in the menu how to add and manage records.

The address of the database: http://triz.h4u.eu/projects

The database is moderated to avoid spam and false records. It is designed and maintained under initiative of the International TRIZ Association MATRIZ.

Paper: Trend of Functionality Evolution

The paper presents a new addition to the TRIZ Theory of Engineering (Technical) Systems Evolution: a trend which studies how functionality of technical systems changes over time and how these changes affect technical systems. Eighteen steps of functionality evolution are described and each step is illustrated with examples. Knowledge of functionality evolution might be helpful to estimate a position of a technical system, generate new ideas, and produce a more accurate innovation roadmapping.

Download the paper at:

http://www.xtriz.com/publications/Souchkov_TrendFunctionalityEvolution.pdf

CONFERENCES

TRIZfest 2014 in Prague

This year the 10th International Conference TRIZFest 2014 was held on September 4-6 in Prague, Czech Republic including September 3 as a pre-conference day.

The event was visited by 70 participants from 20 countries. The conference program included presentation of 35 papers, 3 keynote talks, 2 invited presentations, and 2 pre-conference workshop tutorials. During the last conference day, the MATRIZ dissertation council performed a session on the theses defence and awarded the degree of "TRIZ Master" to selected candidates.

A keynote by Martha Gardner, Chief Scientist and Global Quality Leader of GE Global Research was dedicated to a role TRIZ currently takes at GE. It was noted that GE considers TRIZ as integral to its Design and Value toolkit and that TRIZ has been identified as one of the key components to support conceptual design phases. She noted that by now over 2000 of employees of GE Global Research took basic TRIZ training and over 60 professionals possess the MATRIZ Level 3 degree.

A keynote by Val Tsourikov, currently Chief AI Architect of Predizo, LLC and former founder of Invention Machine Corporation focused on presenting computational creativity as megatrend and predicted that soon artificial intelligence methods and tools are going to impact human civilization by becoming capable of producing creative ideas on even a broader scale than humans.

A keynote by Ivan Masin of the University of Luberec, presented history of TRIZ adoption by Czech production plans and highlighted current challenges with further dissemination of TRIZ.

During invited presentations, Simon Dewulf of Aulive presented a platform supporting crowdsourcing through the property-function approach in the patent database, and Simon Litvin of Gen3 discussed recent developments of TRIZ methods and tools by Gen3.

The two days of the conference were dedicated to paper presentations. The proceedings with all papers are available for free public access (see below).

During the last day of the conference the degree of TRIZ Master (MATRIZ Certification Level 5) was awarded to Hongyul Yoon (South Korea) for successful defence of his thesis promoting a new approach to improving the cause-effect chain analysis, as well as to Robert Adunka (Germany), Gregory Severinets (Belarus/China), Michael Gershman (Israel), Igor Petiy (Russia), and Yong Won Song (South Korea) for their contribution to the development of TRIZ.

The location of the event was perfect, in 100 meters from Charles Bridge in the historic centre of Prague. Social events included cocktail party and a dinner cruise on Vltava River. The conference was sponsored by MATRIZ and Czech Union of Inventors and Rationalizers.

More detailed report on the event from MATRIZ is available at www.matriz.org

Next TRIZFest conference will be organized on September 10-12, 2015 in South Korea. The Call for Presentations will become available shortly.
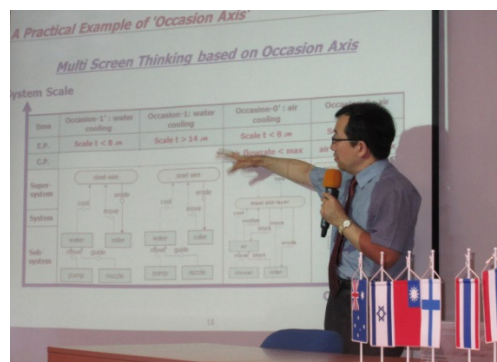
Opening of the conference

Keynote by Martha Gardner

Participants

Keynote by Val Tsourikov

TRIZ Master defence by Hongyul Yoon

Dinner cruise on Vltava river

Those remained after closing the event

Free Download of TRIZfest 2014 Proceedings

The full texts of the proceedings of the the International Conference TRIZFest 2014 edited by me and prof. Tuomo Kassi from Lappeenranta University in Finland has been uploaded to the matriz.org archive pages.

It is available for free access by courtesy of MATRIZ and can be downloaded from: http://matriz.org/auto-draft/

Forthcoming TRIZ-Related Conferences in 2014

On October 29-31, the European TRIZ Association will conduct TRIZ Future 2014 conference in Lausanne, Switzerland:

http://gic14.com/

Next, I will be speaking and running a one-day tutorial at PESTA TRIZ 2014 Conference on November 11-14 in Penang, Malaysia:

http://mytriz.com.my/pages/view/section/news/permalink/20140821052306-triz-community-to-meet-at-pesta-triz-2014

CONSULTING AND FACILITATION

ZIRT: TRIZ-Based Innovation Marketing

In May-June of 2014 I performed a series of workshop "Innovation-Based Marketing" at Brainport in Eindhoven for a group of CEOs and owners of small and medium high-tech companies targeted at further growth.

ZIRT is an abbreviation reverse to TRIZ. If TRIZ focuses on finding solutions to problems, ZIRT delivers a reverse function: helps with finding a problem (or problems) which can be tackled with existing solutions.

Once a company developed and commercialized an innovative technology, the question emerges: where else the technology can be used? A subject of special interest are application areas which reside far away from the original application area the technology was designed for.

During the "Innovation-Based Marketing"

workshops ZIRT approach helped five companies to discover a number of new and promising application domains for their technologies which can lead to developing new products for the mass market.

The workshops took place jointly with TIAS Business School and were supported by Brainport's "NextOEM" program:

http://www.nextoem.com/news/tias-looks-forward-to-support-nextoem-companies-in-growth

TRAINING, CERTIFICATION, EDUCATION

MATRIZ Certification and Training by ICG T&C

On January 30, 2014 Valeri Souchkov became a member of the International TRIZ Association (MATRIZ) Council on Expertise and Methodology (MATRIZ CEM) and was accredited by MATRIZ to perform certification of MATRIZ Levels 1-3.

Currently MATRIZ system is recognized as most distributed and credible TRIZ certification system worldwide.

There are two ways to receive MATRIZ certification from ICG T&C: either to participate in TRIZ and Systematic Innovation certification training (public, corporate or online) or to pass certification exam.

Curricula, tasks and criteria of certification training are available at http://www.xtriz.com/Training/ICGTC_MATRIZ_Certification_Tasks_and_Criteria.pdf

More information on our public and online certification courses: http://www.xtriz.com/Training

Public training workshops on Root-Conflict Analysis (RCA+) and Value Conflict Mapping (VCM)

Last Fall I performed a series of courses on hands-on application of two relatively new TRIZ techniques which can be used at an analytical stage of a TRIZ Process: RCA+ and VCM. In particular, two such courses were organized by the TRIZ Campus and supported and hosted by General Electric Global Research in Munich, Germany.

Root Conflict Analysis (RCA+) helps with managing complexity of a specific innovative problem by identifying a set of contradictions that contribute to the problem and establishing relationships between these contradictions. As a result we obtain an accurate problem formulation directly in the form of interrelated contradictions.

Value-Conflict Mapping (VCM) is a strategy-defining tool which helps to develop a map which establishes and structures relationships between all types of so-called "blocking" contradictions which should be resolved within short and long terms to develop a system or a product further. VCM was designed to define contradictions that emerge between market, technology and business demands.

The audience accepted both tools rather well, and intensive practice during two days helped to learn details of the techniques. The feedback I got would definitely help me to work on further enhancements of both techniques.

Both courses are available through regular training and online:
http://www.xtriz.com/Training/online_training.htm

TRIZ for Business and Management for Russian-speaking Audience

In March-August I was invited to deliver several master classes and a public training workshop for Russian-speaking audience in Minsk, Belarus. All the events were dedicated to using TRIZ for business and management problem solving and for business systems innovation. I already delivered such courses in English, but it was the first time in Russian.

The audiences primarily consisted of business managers, executives and owners of different types of companies: from retail companies to IT and construction companies.

During the master classes I introduced the key concepts of TRIZ, how they have been adapted to business and management, and how the TRIZ approach to solving non-standard problems can be used within the business and management context to drastically shorten problem solving time and increase quality of new innovative ideas and solutions.

During the 3-day basic course which focused on innovative business problem solving and which involved 18 participants, several real cases brought by the participants were used to enhance the training process. All cases were successfully solved – at least, in theory. Next, the participants have to implement the solutions obtained in their companies.

I was pleasantly surprised by the enthusiasm of the participants and their willingness to accept and adopt TRIZ. Some of them are interested in implementing TRIZ at their companies.

Summer TRIZ Fundamentals 2014 Course at Twente University

Our annual course "TRIZ Fundamentals" was held on July 7-18, 2014. It was a regular two-week course which included 82 training hours in Enschede, the Netherlands organized jointly by the University of Twente and ICG Training & Consulting.

The total class of 50 students included B.Sc and M.Sc university students and a number of experienced professionals.

All the participants were divided to 15 groups. Each group performed 9 practical assignments based on real cases. As usual, the course went quite well and we are happy with results. All students were graduated.

This year we were surprised by the interest in the course: already in early February we had over 80 applications. Unfortunately, at the moment we could handle 50 participants only. Thus if anyone is willing to join the next course it is highly recommended to contact us as soon as possible.

Our next course is scheduled for July 2015. More information about the course and how to sign in is available at

http://www.xtriz.com/summercourse.htm

Online Training and Certification in 2014

Online training was introduced as a complementary service by ICG T&C. It is based on video courses and provides an individual approach to each student. Since 2011, over 100 professionals from different companies, academic organizations, industrues and countries were trained.

It is perhaps not a very large number, but it becomes clear that the effectiveness of online TRIZ training is certainly higher than of a similar training a normal class. It has to do with many factors which seem to enhance the training process: flexible time management, lower costs, removal of physical constraints, and more time spent by a trainer to work with each student. Lately the number of requests for online training have been growing. The most popular is the combined course on Basic and Advanced TRIZ for Technology and Engineering.

Currently we offer the following online courses:

Packaged Courses (MATRIZ and TTIC Certification):

Basic TRIZ for Technology and Engineering
TTIC Practitioner certificate, Basic Level and MATRIZ Certificate Level 1.

Advanced TRIZ for Technology and Engineering
TTIC Practitioner certificate, Advanced Level and MATRIZ Certificate Level 2.

Basic and Advanced TRIZ for Technology and Engineering (Combined)
TTIC Practitioner certificate, Advanced Level and MATRIZ Certificate Level 2.

Professional TRIZ for Technology and Engineering
TTIC Professional certificate, MATRIZ Specialist Certificate Level 3.

TRIZ-based Problem Solving for Business and Management
TTIC Practitioner certificate. MATRIZ Certificate Level 1.

Advanced TRIZ in Business and Management
TTIC Practitioner certificate. MATRIZ Certificate Level 2.

Systematic Creative Imagination Development
TTIC Practitioner certificate

Courses on Specific Tools (TTIC practitioner certification):

Inventive Principles and Contradiction Matrix for Technology and Engineering
TTIC Practitioner certificate

Inventive Principles and Contradiction Matrix for Business and Management
TTIC Practitioner certificate

TRIZ-based Function Analysis, Catalogues of Effects, Trimming
TTIC Practitioner certificate

Substance-Field Modeling and 76 Inventive Standards
TTIC Practitioner certificate

Root Conflict Analysis (RCA+)
TTIC Practitioner certificate

Value-Conflict Mapping (VCM)
TTIC Practitioner certificate

Laws, Trends and Lines of Technology Evolution
TTIC Practitioner certificate

Laws, Trends and Lines of Business Evolution
TTIC Practitioner certificate

Algorithm of Solving Inventive Problems (ARIZ)
TTIC Practitioner certificate

We also provide online coaching and assistance. More information about our online services:
http://www.xtriz.com/Training/online_training.htm

xTRIZ LinkedIn Group

Linked in.

The LinkedIn xTRIZ group is available at:
http://www.linkedin.com/groups?gid=4485435

To join, please request a membership.

- ICG T&C Newsletter Archive
- Other publications from ICG T&C: http://www.xtriz.com/publications.htm

Prepared by Valeri Souchkov, September 2014

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